

## **Historic, Archive Document**

**Do not assume content reflects current scientific knowledge, policies, or practices.**





## *Market Gardeners' Price List*

# Seeds

## Fertilizer and Supplies

**REED & CHENEY COMPANY**  
Grand Rapids, Michigan

REED & CHENEY COMPANY

JUN 6 1919

U. S. Department of Agriculture

# *Special Notice!*

We sell absolutely nothing that we do not believe to be the best obtainable. As perhaps you know, we are growers ourselves, especially under glass, operating several extensive greenhouse plants, and naturally we are vitally interested in good seed. We test all seeds and sell none that we would not be willing to plant ourselves.

*Remit Money with Order.* Money can be sent safely by Post Office Order, Express Money Order, Bank Draft, or Check.

*We Pay Postage or Express Charges* on all seeds ordered at prices listed in this book, up to twenty pounds. All other prices are f. o. b. Grand Rapids.

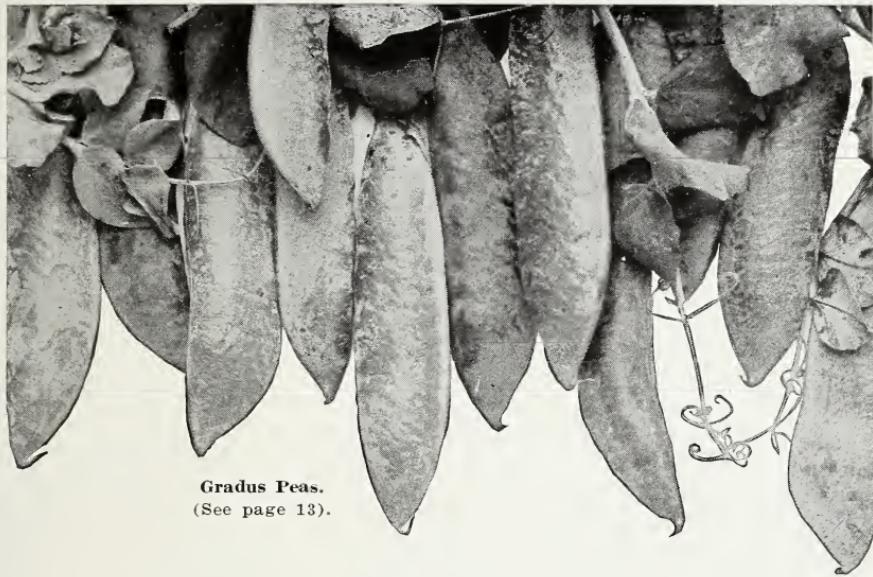
*Bags.* To every order for twenty pounds and upwards, to the amount of one hundred pounds, 60c must be added for a new bag in which to ship.

All prices are subject to market changes and to goods being unsold. This is necessary as these prices are made in anticipation of probable results of crops and we cannot be bound by them for any definite length of time or quantity.

*Non-Warranty.* We sell dependable seeds only; but seeds, bulbs, and plants are subject to climatic and other conditions over which we have no control, therefore, we give no warranty, express or implied, as to description, purity, productiveness or any other matter of any seeds or bulbs we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

If you are in the market for large quantities, send us a list of your requirements and we will quote you lowest possible prices.

United States Food Administration License Numbers G-07777, A-0360.  
United States Fuel Administration License Number X-3634.



**Gradus Peas.**  
(See page 13).

## *Seed, Service, and Satisfaction*

Our fruit and vegetable crops and their proper protection occupy a more important position now than ever before. It is necessary that we continue to have abundant crops to feed ourselves and for export.

In order to obtain the best results, it is essential that you have the very best seeds, fertilizer and spraying material and all of these we are in a remarkably good position to supply to you.

We have handled these lines for years and these departments of our business have increased beyond our fondest anticipations. The only way we can account for our success in these lines, is that we have furnished dependable seeds at reasonable prices and fair dealing with our customers, as we have not obtained the business by extensive advertising.

We are in better position than ever to serve you and assure you that we will do everything in our power to merit your continued patronage.



Field of Golden Wax Beans.

## Northern Vegetable Seeds

In making up our list of vegetable seeds we have eliminated all that are not good producers in this Northern country. We have been able to do this after careful tests, experiments, and the gathering of information from a variety of sources, and we are positive that the seeds herein presented will prove of exceptional quality and adaptability to this locality. Every seedsman concedes that Northern vegetable seeds of practically every description are the best that can be procured, for the reason that the soil and climatic conditions are suited to their proper growth and development.

### Asparagus

Asparagus seed should be sown early in spring, on rich, light soil, in drills a foot or more apart, covering the seed an inch deep. Thin to three or four inches and keep the ground mellow and clear of weeds the first season by frequent hoeing. The next spring, transplant to a permanent bed, which should be in deep, mellow soil, made very rich by a liberal application of manure.

	Oz.	$\frac{1}{4}$ lb.	Lb.
Palmetto .....	\$0.10	\$0.20	\$0.60



Palmetto Asparagus.

## Dwarf or Bush Beans

### WAX PODDED VARIETIES.

	Lb.	15 lbs.	100 lbs.
Pencil Pod Black Wax	\$0.35	\$4.50	\$25.00
Golden Wax	.35	4.50	25.00
Currie's Rust Proof Wax	.35	4.50	25.00
Davis Kidney Wax	.35	4.50	26.00
Dwarf Early Black Wax	.35	4.50	25.00

### GREEN PODDED VARIETIES

	Lb.	15 lbs.	100 lbs.
Refugee, or 1,000 to 1	\$0.30	\$4.00	\$22.00
Burpee's Stringless	.30	4.00	25.00
Red Kidney	.30	4.00	25.00

## Pole or Running Beans

	Lb.	15 lbs.	100 lbs.
Kentucky Wonder	\$0.30	\$4.00	\$25.00
Dutch Case Knife	.30	4.00	25.00

## Pole Limas

	Lb.	15 lbs.	100 lbs.
King of the Garden Lima	\$0.35	\$4.50	\$26.00

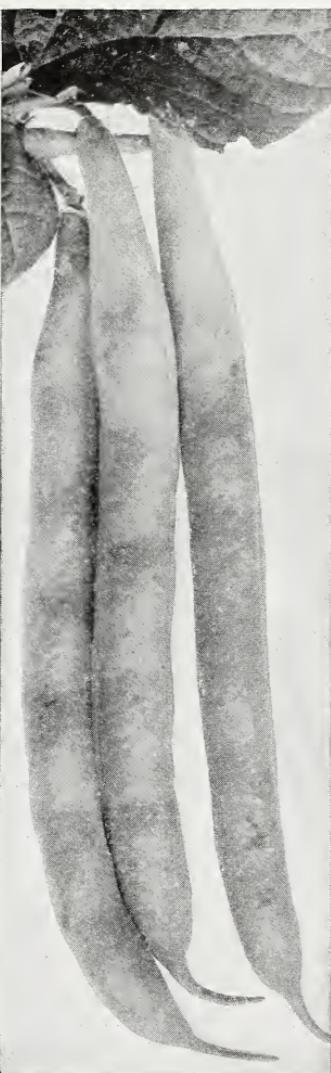
## Dwarf Limas

	Lb.	15 lbs.	100 lbs.
Burpee's Improved Bush Lima	\$0.35	\$4.50	\$26.00
Fordhook Bush Lima	.35	4.50	26.00



Refugee, or 1,000 to 1.

WE AIM TO FURNISH THE  
BEST SEEDS THAT CAN BE  
OBTAINED—THIS IS THE  
FOUNDATION UPON WHICH  
WE HAVE BUILT OUR  
BUSINESS.



Pencil Pod Black Wax.



Crosby's Egyptian Beets.

## Beets

The Beet, on account of its long tap-root, requires a mellow, deeply-worked soil and one in which the fertilizing elements are very uniformly distributed. Coarse, lumpy manure makes ill-shaped roots and should never be used. Soil that has been well manured and cultivated for years in vegetables is the best for the beet crop.

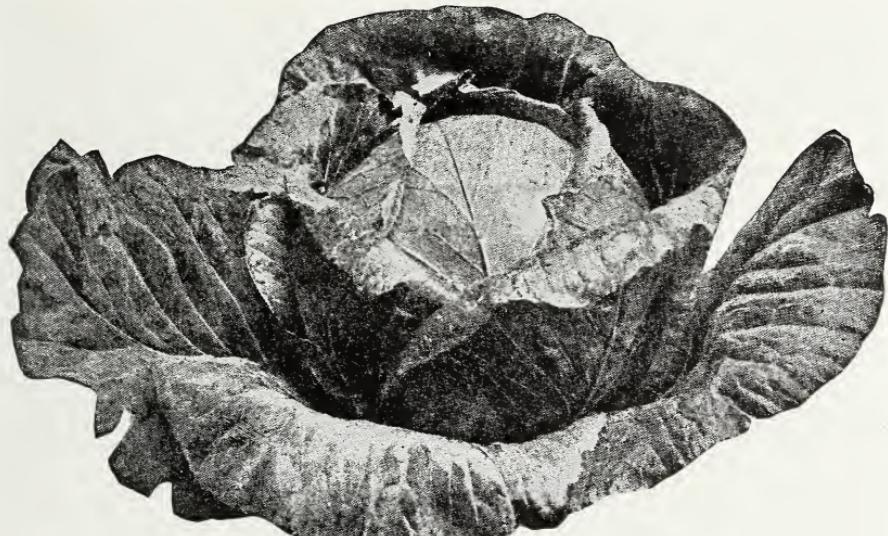
	Oz.	1/4 lb.	Lb.
Crosby's Egyptian .....	\$0.15	\$0.40	\$1.25
Early Egyptian Blood Turnip.....	.15	.40	1.25
Detroit Dark Red—extra fine strain.....	.15	.40	1.25
Early Blood Turnip.....	.15	.40	1.25
Early Eclipse .....	.15	.40	1.25
Long Dark Blood .....	.15	.40	1.25
Swiss Chard .....	.15	.40	1.25

## Mangels and Sugar Beets

	Oz.	1/4 lb.	Lb.
Giant Feeding Sugar Beet or Half Sugar Mangel.....	\$0.15	\$0.35	\$1.00
Lane's Imperial .....	.15	.35	1.00
Mammoth Long Red .....	.15	.35	1.00
Golden Tankard .....	.15	.35	1.00

## Brussels Sprouts

	Oz.	1/4 lb.	Lb.
Carter's Perfection .....	\$0.20	\$0.75	\$2.50



Copenhagen Market Cabbage.

## Cabbage

Good seed is absolutely essential for a successful cabbage crop. Our cabbage seed is particularly good and we believe there is no seed that is more reliable or that will give growers more satisfactory results.

	Oz.	1/4 lb.	Lb.
Early Jersey Wakefield .....	\$0.75	\$2.75	\$10.00
Copenhagen Market .....	.90	3.50	13.00
Early Winningstadt .....	.70	2.25	8.50
Henderson's Early Summer .....	.55	2.00	7.00
All Head Early .....	.55	2.00	7.00
All Seasons .....	.55	2.00	7.00
Mammoth Rock Red .....	.70	2.75	10.00
Charleston or Large Wake-field .....	.75	2.75	10.00
Premium Flat Dutch .....	.70	2.25	8.00
Hollander, or Danish Ball Head .....	.90	3.50	13.00
Chinese Pe-tsai .....	.50	1.50	5.00

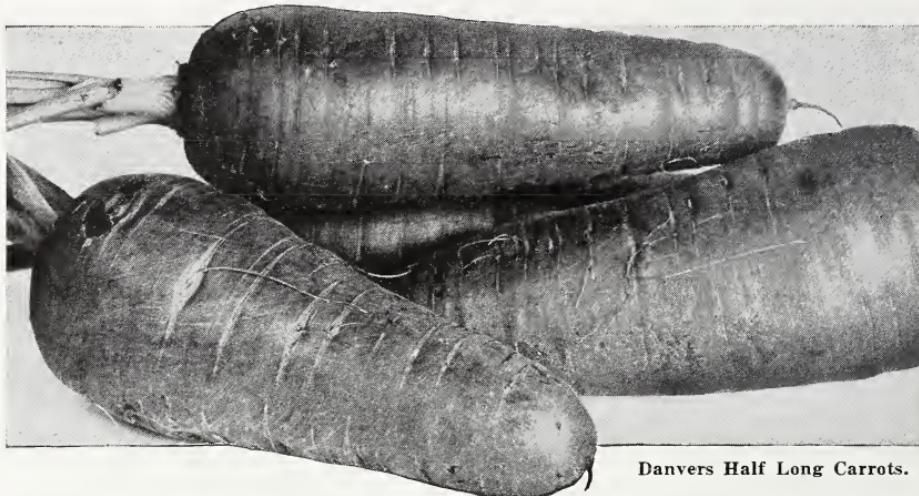


Danish Ball Head Cabbage.

## Cauliflower

Cauliflower requires very high cultivation, even more so than cabbage, and plenty of moisture. Coldframe plants are probably the best and hardiest for early crops; the frames, however, need rather more protection during cold nights than is required for cabbage plants.

	1/4 oz.	1/2 oz.	Oz.	1/4 lb.
Early Snowball .....	\$1.00	\$1.75	\$3.00	\$10.00



Danvers Half Long Carrots.

## Carrot

The Carrot should always be furnished a good, rich, deep soil. Sow in spring as soon as the ground is in good working order. For garden culture, sow in drills 16 to 18 inches apart, covering the seed one-half inch to an inch deep. Press the soil firmly about the seed, as it is slow to germinate. An important feature in sowing carrots, as in all other seeds, is firming the seed in the soil; this may be done with the foot or a spade.

	Oz.	1/4 lb.	Lb.
Chantenay .....	\$0.15	\$0.40	\$1.00
Danvers Half Long.....	.15	.40	1.00
Ox Heart .....	.15	.40	1.00
Improved Long Orange.	.15	.40	1.00
Yellow Belgian .....	.10	.25	.75
White Belgian .....	.10	.25	.75

## Celery

Celery thrives in a rich, mellow, moist, but not wet, soil, and will do better in land well manured the previous season. For early crop during January, transplant into rows five to six feet apart.

	Oz.	1/4 lb.	Lb.
Golden Self-Blanching (American Grown) ...	\$0.35	\$1.25	\$4.00
White Plume .....	.20	.70	2.50
Kalamazoo, or Dwarf White Solid .....	.20	.65	2.25
Giant Pascal .....	.25	.75	2.00
Winter Queen .....	.25	.75	2.00
Soup or Cutting .....	.10	.35	1.25
Flavoring .....	.10	.20	.60



Golden Self-Blanching.

## Corn

**Culture.**—Sugar Corn requires a good soil and a warm situation. Begin for first early by planting the early varieties about May 1st, and for a continuous supply all summer, make plantings about two weeks apart from May until late July, first planting early varieties, then later ones. Plant in rows 3 feet apart each way.

Lb. 10 lbs. 100 lbs.

### Mammoth White

Corey .....	\$0.30	\$2.50	\$22.00
Golden Bantam .....	.30	2.50	23.00
Early Minnesota .....	.30	2.50	22.00
Early Evergreen .....	.30	2.50	22.00
Crosby's Early .....	.30	2.50	22.00
Country Gentleman..	.30	2.50	22.00
Black Mexican .....	.30	2.50	22.00
Stowell's Evergreen..	.30	2.40	21.00

## Corn Salad

This small salad is used during winter and spring as a substitute for lettuce, and is also cooked and used like spinach. The plant does not thrive during warm weather and seeds should be sown thinly in drills during August, September and October. Sow about  $\frac{1}{4}$ -inch deep.

Oz.  $\frac{1}{4}$  lb. Lb.

Large Leaf .....	\$0.10	\$0.30	\$1.00
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## Cress or Peppergrass

The curled variety may be sown in shallow drills, 1 foot apart; it grows quickly and should be cut when very young; sow often, as when left to get old it becomes very pungent; it makes a tasty salad.

Oz.  $\frac{1}{4}$  lb. Lb.

Extra Curled .....	\$0.15	\$0.35	\$1.25
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Golden Bantam.



Country Gentleman.



Davis Perfect Cucumbers.

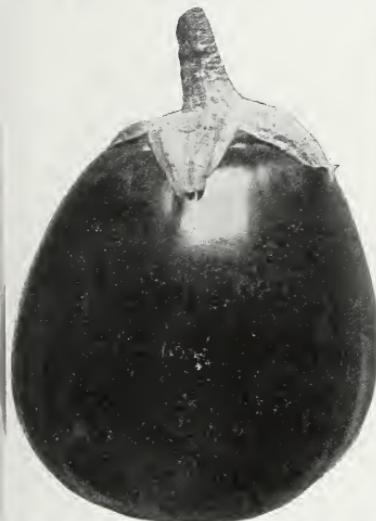
## Cucumbers

One ounce will plant about 50 hills, 2 lbs. will plant an acre. Sow about the first of May in pots, box, or piece of sod, so they can be readily transplanted without disturbing the growth. Transplant to open ground in three or four weeks; plants about four feet apart each way, four strong plants to each hill.

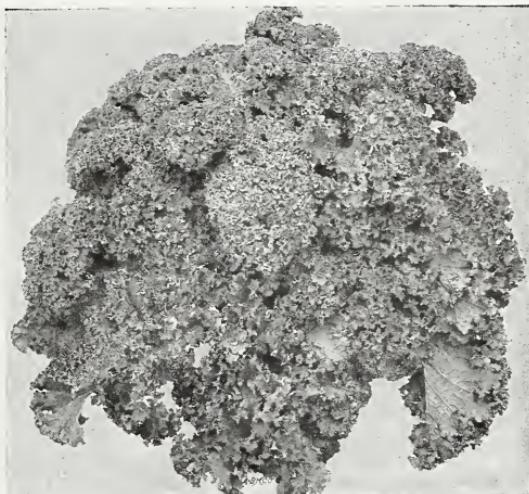
	Oz.	1/4 lb.	Lb.
<b>Early Fortune.</b> Perhaps the best market and shipping Cucumber in existence. One of the very best for either forcing or outdoor growing. Our Early Fortune seed is exceptionally good.....	.15	.40	1.25
<b>Davis' Perfect.</b> Originated by Eugene Davis of Grand Rapids, Mich. A perfect cucumber for greenhouse or outdoor use, being uniform, long and ideal for table purposes .....	.10	.30	1.00
Early Green Cluster .....	.10	.30	1.00
Improved White Spine .....	.10	.30	1.00
Improved Long Green .....	.10	.30	1.00
Arlington White Spine .....	.10	.30	1.00
Boston Pickling .....	.10	.30	1.00
Chicago Pickling .....	.10	.30	1.00



Arlington White Spine.



Black Beauty Egg Plant.



Dwarf Scotch Kale.

## Egg Plant

Sow in hotbed early in spring; transplant 2½ feet apart each way after weather becomes settled and warm. If no hotbed is at hand, plants may be started in pots or boxes. The potato beetle is very fond of the plants. Paris Green, applied as to potatoes, will keep them in check.

	Oz.	¼ lb.	Lb.
Black Beauty .....	\$0.60	\$2.00	\$7.00
New York Purple .....	.60	2.00	7.00

## Endive

	Oz.	¼ lb.	Lb.
Large Green Curled .....	\$0.15	\$0.40	\$1.50
Moss Curled .....	.15	.40	1.50
Broad Leaf Batavian .....	.15	.40	1.50

## Kale or Borecole

	Oz.	¼ lb.	Lb.
Dwarf Scotch .....	\$0.20	\$0.70	\$2.50

## Kohl Rabi

	Oz.	¼ lb.	Lb.
Early White Vienna .....	\$0.25	\$0.85	\$3.00

## Leek

	Oz.	¼ lb.	Lb.
American Flag .....	\$0.20	\$0.75	\$2.50



Field of Big Boston Lettuce.

## Lettuce

A vegetable that should be grown in every garden. We carefully test our lettuce seed and believe that lettuce seed from us cannot be excelled.

Sow seed in rows, thinly, having the rows about 1 foot apart; thin out, leaving the plants you wish to mature about 1 foot apart. Seed can be sown in a hotbed early and transplanted out when the ground is warm. Lettuce likes well pulverized, rich soil; in extremely dry weather seldom heads well.

**Grand Rapids Forcing.** Originated by Eugene Davis of Grand Rapids, Mich. We make a specialty of this seed.

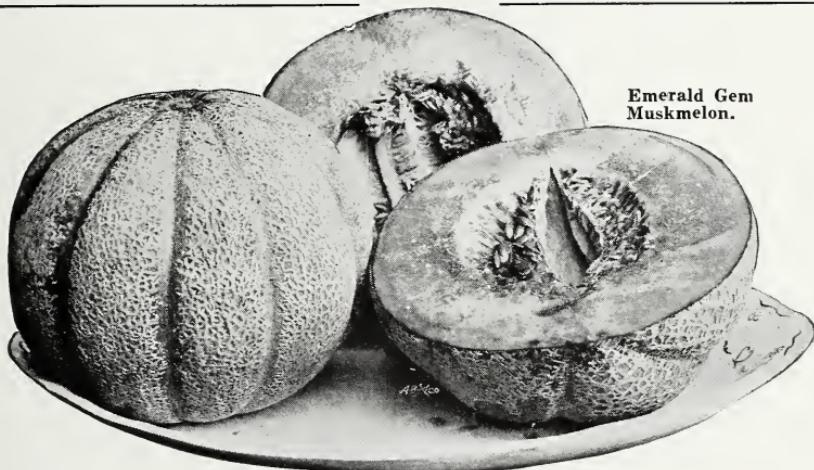
Crops are grown in our greenhouses from all seed before it is offered for sale. When you buy this seed from us you get the same seed we use in all our green-

Oz.	1/4 lb.	Lb.
\$0.15	\$0.35	\$1.25

Simpson's Early Curled .....	.10	.30	1.00
May King .....	.10	.30	1.00
Early Prize Head .....	.10	.30	1.00
Big Boston .....	.10	.30	1.00
Unrivaled .....	.10	.30	1.00

## Mustard

White London .....	Oz.	1/4 lb.	Lb.
	\$0.10	\$0.25	\$0.80



## Muskmelon

Muskmelons like a warm, rich soil, quite sandy. Plant seeds in hills four to six feet apart each way, eight or ten seeds in a hill, and when danger of insects is past, thin to three or four plants. Well rotted manure or other fertilizer previously mixed in the soil of a hill is a great help. The quality of the melons depends on good conditions of growth. Give shallow cultivation until vines cover the ground, and pinch off ends of growing shoots.

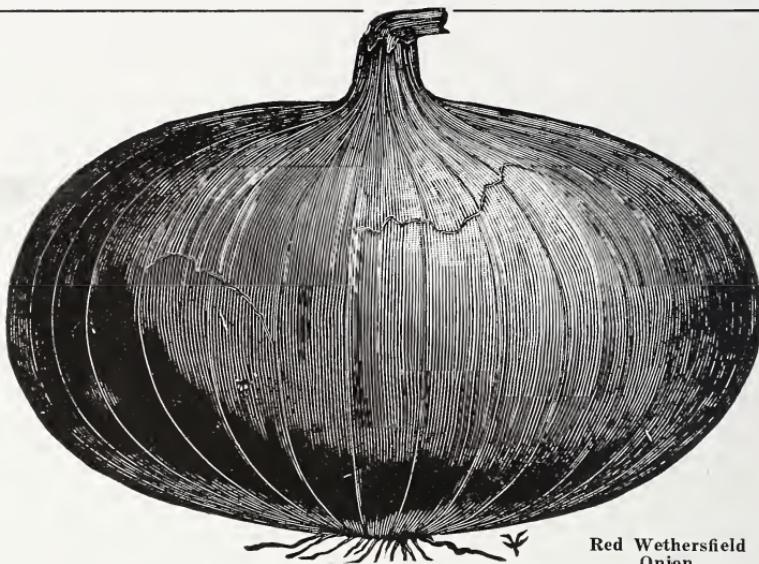
	Oz.	1/4 lb.	Lb.
Osage		\$0.15	\$1.25
Rocky Ford or Netted Gem		.15	.40
Emerald Gem		.15	.40
Extra Early Hackensack		.10	.30
Large Hackensack		.10	.30
Grand Rapids Early Market		.10	.30

## Watermelon

	Oz.	1/4 lb.	Lb.
Cole's Early		\$0.10	\$0.75
Kleckley's Sweet, or Monte Cristo		.10	.25
Peerless, or Ice Cream		.10	.25
Sweet Heart		.10	.25



Kleckley's Sweet Watermelon.



Red Wethersfield  
Onion.

## Onions

Onions require rich soil and constant cultivation. The soil should be well prepared and cultivation should be intense, keeping the weeds and grass from choking out the small plants.

Beware of poor onion seed. **Buy the Best.**

	Oz.	1/4 lb.	Lb.
Prizetaker .....	\$0.30	\$1.00	\$3.50
Southport Red			
Globe .....	.25	.80	3.00
Southport Yellow			
Globe .....	.25	.80	3.00
Southport White			
Globe .....	.30	1.00	3.50
Red Wethersfield	.20	.70	2.50
Yellow Globe			
Danvers .....	.20	.70	2.50
Ohio Yellow			
Globe .....	.20	.70	2.50
White Portugal			
or Silverskin..	.30	1.00	3.50
Australian Brown	.20	.70	2.50

### Onion Sets

Write for prices on Onion Sets, or send us your order and we will fill it at lowest market price.

#### Red Bottom Onion

Sets .....

Yellow Bottom Sets... Market Price

White Bottom Sets.... Market Price

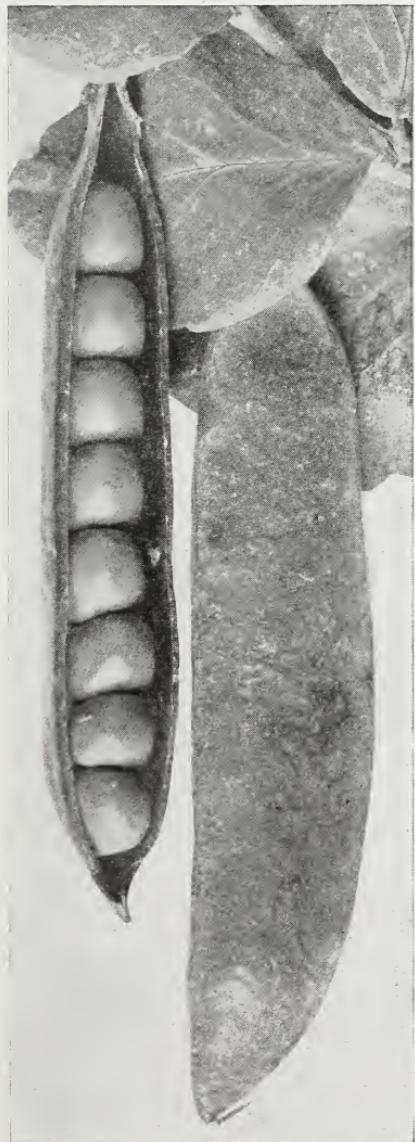


Yellow Globe Danvers.

## Peas

Peas should be a part of every garden. They should be planted as early in the Spring as possible. The early varieties should be planted shallow, about 2 inches of dirt being sufficient. The later or wrinkled varieties, however, should be covered two and a half or three inches. The soil should be pressed down tightly over the seed.

	Lb.	15 lbs.	100 lbs.
<b>Alaska, or Earliest</b>			
of All .....	\$0.30	\$3.00	\$18.00
American Wonder..	.30	3.25	20.00
Gradus .....	.35	3.90	24.00
Little Gem .....	.30	3.25	20.00
Nott's Excelsior ..	.30	3.25	20.00
Alderman .....	.30	3.25	20.00
Bliss Everbearing ..	.30	3.25	20.00
Telephone .....	.30	3.25	20.00
Champion of Eng- land .....	.30	3.25	20.00
Dwarf Gray Sugar..	.30	3.25	20.00
Large White Mar- rowfat .....	.25	2.65	17.00
Dwarf Defiance ..	.30	3.25	20.00
Little Marvel .....	.30	3.25	20.00
Sutton's Excelsior..	.30	3.25	20.00
Thomas Laxton ..	.30	3.50	22.00



Nott's Excelsior.



Little Gem.



Hollow Crown Parsnips.



## Pepper

	Oz.	1/4 lb.	Lb.
Nose .....	\$0.70	\$2.50	\$ 9.00
Ruby King .....	.70	2.50	9.00
Schell's New			
Quality .....	.70	2.75	10.00

## Pumpkin

	Oz.	1/4 lb.	Lb.
Connecticut Field	\$0.10	\$0.25	\$0.85
King of Mam-			
moth .....	.15	.35	1.25
Large Cheese, or			
Kentucky Field	.10	.25	.85
Sugar or Pie.....	.15	.35	1.25

## Okra or Gumbo

	Oz.	1/4 lb.	Lb.
White Velvet .....	\$0.10	\$0.20	\$0.75

## Parsley

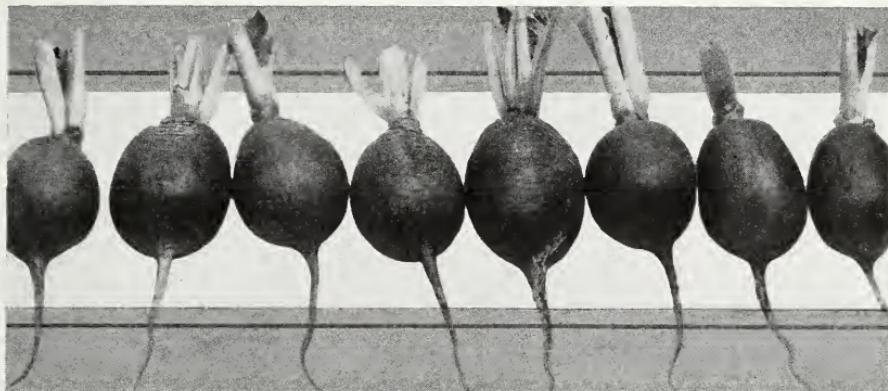
	Oz.	1/4 lb.	Lb.
Champion Moss			
Curled .....	\$0.10	\$0.30	\$1.00

## Parsnip

	Oz.	1/4 lb.	Lb.
Hollow Crown..	\$0.15	\$0.30	\$1.00



Large Bell or Bull Nose Pepper.



Vick's Early Scarlet Globe.

## Radishes

It is not generally known that our soil and climate are particularly suited to the production of Radish seed of the very best quality. A few of our best seedsmen have known this for years and have been growing their seed here in the North. Seedsmen used to think that we must go to France to get the best radish seed. Those who have had experience and know, now claim that the seed grown in Northern Michigan is fully equal, if not better, in all respects than the best French grown seed.

We take considerable pride in our Radish seed and take every precaution possible to handle the best only. Buy the best and you will get the best results.

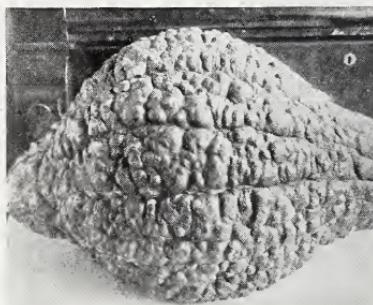
	Oz.	1/4 lb.	Lb.
<b>Grand Rapids Forcing.</b> Very best forcing Radish; has given greenhouse men remarkable satisfaction. Short leaved, olive-shaped and bright scarlet color .....	\$0.20	\$0.60	\$2.00
Vick's Early Scarlet Globe .....	.15	.35	1.25
Early Scarlet Turnip .....	.15	.35	1.25
French Breakfast Turnip .....	.15	.35	1.25
Improved Chartier .....	.15	.35	1.25
Crimson Giant .....	.15	.35	1.25
Cooper's Sparkler .....	.15	.35	1.25
Icicle .....	.15	.35	1.25
China Rose Winter .....	.15	.35	1.25
Long Black Spanish .....	.15	.35	1.25
Round Black Spanish .....	.15	.35	1.25
Long Scarlet Short Top .....	.15	.35	1.25
Philadelphia White Box .....	.15	.35	1.25
New Saxa .....	.15	.40	1.50



Icicle.



Thick Leaved Spinach.



True Hubbard Squash.

## Rhubarb or Pie Plant

	Oz.	1/4 lb.	Lb.
Victoria .....	\$0.15	\$0.50	\$1.75

## Salsify or Vegetable Oyster

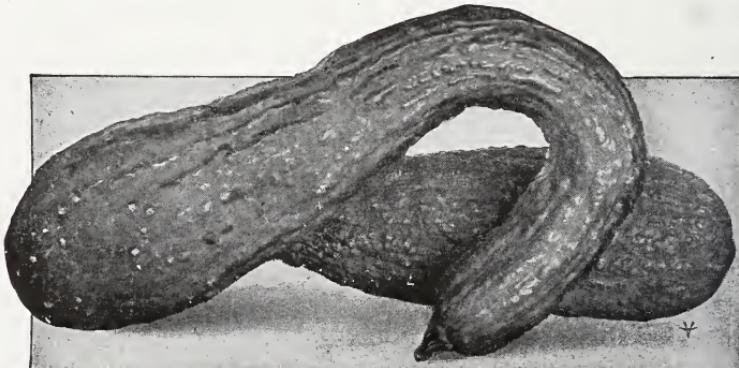
	Oz.	1/4 lb.	Lb.
Mammoth Sandwich Island .....	\$0.20	\$0.70	\$2.50

## Spinach

	Oz.	1/4 lb.	Lb.
Thick Leaved .....	\$0.20	\$0.35	\$1.25
Long Standing .....	.20	.35	1.25
Bloomsdale .....	.20	.35	1.25

## Squash

	Oz.	1/4 lb.	Lb.
Summer Crookneck .....	\$0.15	\$0.35	\$1.25
Early Yellow Bush Scallop .....	.15	.35	1.25
Early White Bush Scallop .....	.15	.35	1.25
True Hubbard .....	.15	.40	1.50
Golden Hubbard .....	.15	.40	1.50
Chicago Warty Hubbard .....	.15	.40	1.50



Summer Crookneck.



John Baer Tomatoes.

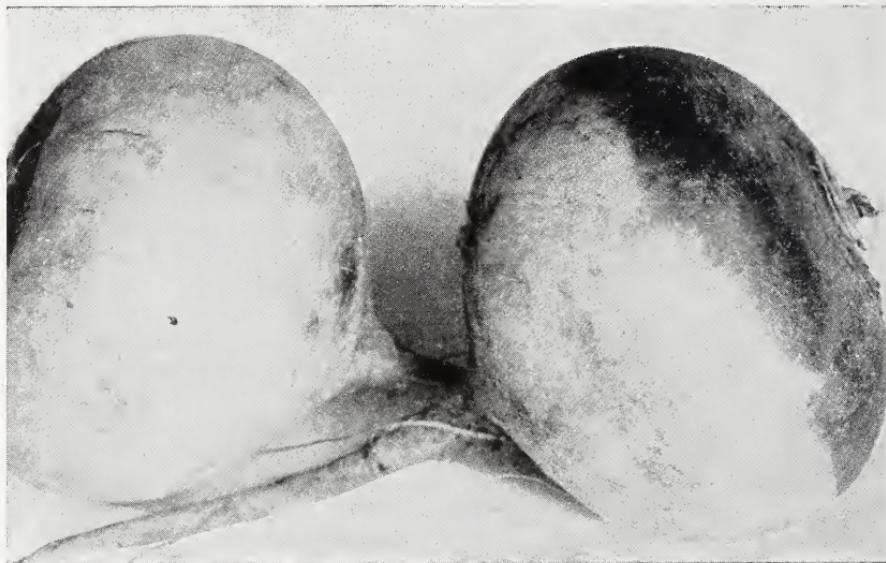
## Tomatoes

Do not set the young plants in open before all danger of frosts is over, which is generally end of May to first week in June. Being very tender, they will not bear the least frost. Choose a light, sandy or gravelly loam in sheltered situation, and if possible with southern exposure if early fruit is desired.

**Grand Rapids Forcing.** This Tomato was originated by John Wierenga of Grand Rapids, Mich., and was first generally grown commercially in Grand Rapids greenhouses in 1916. It has proven a remarkable success. Our strain of this seed has been carefully selected each year since it was originated. It is from the best fruit from carefully selected vines, greenhouse grown, for our own use, as all our greenhouses are set to this variety each year.....\$1.75 \$5.00

We are, at the present time, entirely sold out of this seed and cannot fill any orders until after harvest, about the first of September. If you desire our particular strain of this seed, would advise ordering early, as our supply will be limited.

	Oz.	1/4 lb.	Lb.
Bonnie Best .....	\$0.40	\$1.25	\$4.00
Earliana .....	.40	1.25	4.00
Early Michigan .....	.40	1.25	4.00
Chalk's Early Jewel .....	.30	1.00	3.50
Dwarf Champion .....	.30	1.00	3.50
Red Rock .....	.40	1.25	4.00
Stone .....	.30	1.00	3.50
Dwarf Stone .....	.35	1.25	4.00
Ponderosa .....	.40	1.50	5.00
John Baer .....	.35	1.25	4.00



Purple Top White Globe Turnips.

## Turnips

For this crop the lightest and warmest located land should be used, newly cleared land being considered the best. Sow seed evenly and thinly, brush in lightly with a smoothing harrow. Sow as early as the condition of the soil will permit. The turnips should be pulled as soon as they are as large as a teacup. Commence sowing the earliest varieties in April in drills from 12 to 15 inches apart and thin out early to 6 to 8 inches in the rows. At the end of August sowing may be made for the fall and main crops.

	Oz.	1/4 lb.	Lb.
Cow Horn .....	\$0.15	\$0.50	\$1.75
Green Top Yellow Aber-			
deen .....	.15	.45	1.50
Purple Top Strap Leaf.....	.10	.35	1.25
Purple Top White Globe ..	.15	.50	1.75
Robertson's Golden Ball ..	.15	.45	1.50
White Egg .....	.10	.35	1.25

## Rutabaga

For feeding stock in the fall and winter there is nothing superior to Rutabagas, as they are much liked by all kinds of stock and serve to keep them in good condition. Ton for ton, they are worth one-third the price of the best Timothy hay.

	Oz.	1/4 lb.	Lb.
Improved American Purple			
Top Yellow .....	\$0.15	\$0.40	\$1.50



Purple Top Strap Leaf Turnips.

## Tobacco

Pulverize the soil of the seed bed thoroughly. Sow seed as soon as danger of frost is over. When plants are 6 inches high, transplant into hills 4 or 5 feet apart each way and cultivate frequently. One ounce of seed will produce plants for an acre.

	Pkt.	Oz.	$\frac{1}{4}$ lb.	Lb.
Connecticut Seed Leaf . . . . .	\$0.10	\$0.25	\$0.75	

## Herbs

	Oz.	$\frac{1}{4}$ lb.	Lb.
Anise . . . . .	\$0.15	\$0.35	\$1.25
Caraway . . . . .	.10	.30	1.00
Dill . . . . .	.15	.50	1.50
Lavender . . . . .	.30	1.00	3.25
Sage . . . . .	.40	1.40	5.00
Summer Savory . . . . .	.20	.60	2.25
Sweet Marjoram . . . . .	.20	.75	2.50
Thyme . . . . .	.40	1.25	4.00

## Bird Seed

	Lb.	100 lbs.
Recleaned Canary . . . . .	\$0.35	\$30.00
Bird Rape Seed . . . . .	.25	20.00
Lettuce . . . . .	.20	15.00
Mixed Bird Seed . . . . .	.25	20.00



Tobacco.



Dill.



Marjoram.



An Attractive Planting of Flowers.

## Flower Seeds

	Pkt.	Oz.	Lb.
Alyssum, Sweet .....	\$0.05	\$0.25	
Aster—Victoria, mixed colors .....	.10	2.00	
Aster—Giant Crego, white .....	.10	1.75	
Aster—Giant Crego, pink .....	.10	1.75	
Aster—Finest Mixed .....	.10	1.50	
Candytuft—Finest Mixed .....	.05	.20	
Carnation—Marguerite, mixed colors .....	.05	1.50	
Castor Bean—Mixed .....	.05	.25	
Cosmos—Early Flowering .....	.10	.50	
Forget-Me-Not, Blue .....	.10	.60	
Gourds—Mixed .....	.05	.25	
Hollyhocks—Choice Mixed .....	.10	2.00	
Mignonette—Sweet .....	.05	.25	
Mignonette—Machet .....	.10	.60	
Morning Glory—Giant Japanese .....	.05	.25	
Nasturtium—Tall Mixed .....	.05	.15	1.50
Nasturtium—Dwarf Mixed .....	.05	.15	1.50
Pansy—Giant Mixed .....	.10	2.00	
Poppy—Shirley, extra fine mixed .....	.05	.30	
Poppy—Carnation, double mixed .....	.05	.30	
Salvia—Scarlet Sage .....	.10	3.00	
Scarlet Runner .....	.05	.10	.40
Sunflower—Double Chrysanthemum .....	.05	.40	
Verbena—Fine Mixed .....	.10	1.00	
Wild Cucumber .....	.05	.20	1.00
Zinnia—Double, Choice Mixed .....	.10	.50	
Sweet Peas—Fancy Mixed .....	.05	.20	1.00



Nothing Adds More to the Attractiveness of the Grounds than a  
Well Kept Lawn.

## A Beautiful Lawn

There is nothing which adds more to the external attractiveness of a home than a beautiful lawn. You may have such by providing the right conditions.

To obtain a good lawn it is very essential that care be used in selecting the seed. Many people are under the impression that there is danger in getting weed seed in lawn mixtures; this impression no doubt has been formed because it is a common practice top grading off with rich dirt taken from some location that has not been under cultivation, hence contains the seeds that are common to that locality. When such soil is used it should be cultivated long enough to free it from such seeds, then sow a reliable lawn mixture, when better results will be obtained than by sodding, and at much less expense.

To start a new lawn from seeding, have the soil thoroughly spaded up, enriched with commercial fertilizer (Farmers' Favorite, see page 34), or with cattle or sheep manure (See page 33), level and roll it well to make it compact. Select a still, damp day for seeding; sow one-half of the seed from North to South and half from East to West, rake it over and roll again. When the grass comes up, replant bare or thin spots.

After the lawn is started it still needs attention as does the old lawn. Lawn grass is a voracious feeder and must have the elements necessary to its growth. While stable manure contains these elements, its objectionable features, unsightliness, odor and weed seeds combine to make it highly objectionable.

Pulverized Sheep Manure (See page 33), or a high grade Commercial Fertilizer, like Darling's Farmers' Favorite Brand (See page 34) supply these same elements without the objectionable features, are easy to apply and get real results.

It is also a fact that a very large percentage of lawns need the addition of Lime Rock (See page 37) to sweeten the soil. This particularly applies to the soil under trees that from constant drip and absence of sunshine has become sour and covered with green, mossy slime. In this case it should be broken up with a sharp-toothed rake and treated with Ground Lime Rock (See page 37), and followed with an application of Pulverized Sheep Manure (see page 33), or Farmers' Favorite (see page 34), and re-seeded with Shady Lawn Mixture (See page 23).

The addition of Ground Lime Rock will materially improve practically any lawn.

To make grass green and start quick growth an application of Nitrate of Soda (See page 36) will give desired result quickly. To apply, dissolve the Nitrate in water and sprinkle on the lawn. Should be used sparingly and often. Use about two ounces to gallon of water.

Proper fertilization is necessary for beautiful lawns.



Our Grass Seeds Make the Finest Lawns.

## Grass Seeds

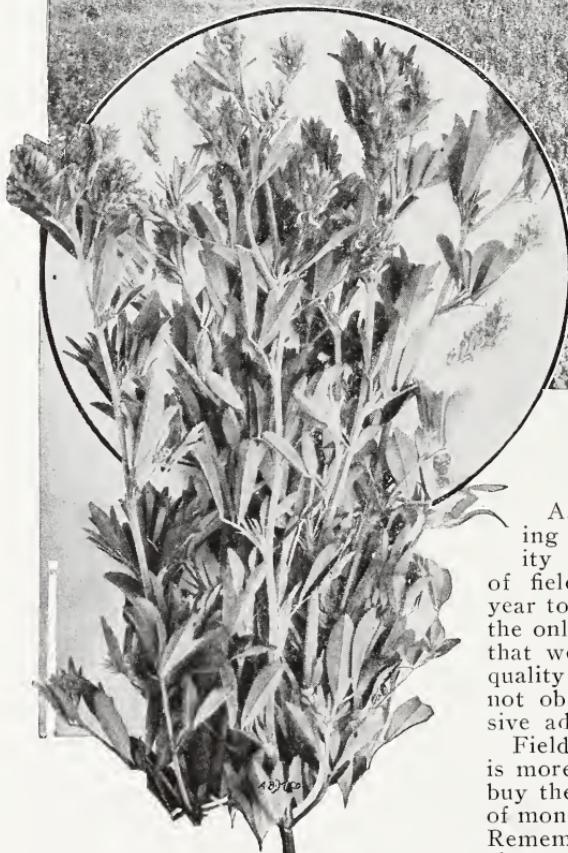
Our endeavor is to handle only the very best and purest grass seeds. We supply only the best and highest germinating seeds and our prices are based on supplying this quality.

### PRICES

	Per pound
Fine Mixed Lawn .....	\$.35
White Clover (White Dutch) .....	.70
Kentucky Blue Grass .....	.40
Red Top—Fancy .....	.45
Red Top—Unhulled .....	.25
English Rye Grass .....	.25
Orchard Grass .....	.45
Shady Lawn Mixture .....	.40

Prices per 100 pounds on application.

We also wholesale large quantities of mixed lawn seed, put up in 14-oz. and 1-lb. paper bags, packed in barrels, 115 packages to the barrel. Dealers should get our prices. They will interest you. The quality of this package seed is strictly maintained and should not be confused with the ordinary package lawn seed.



Alfalfa.

## Field Seeds

As usual our facilities for supplying field seeds of dependable quality are unsurpassed. Our sales of field seeds have increased from year to year by leaps and bounds, and the only reason we can see for this is that we have furnished seed of right quality at the right price, as we have not obtained the business by expensive advertising.

Field Seeds are high in price and it is more important than ever that you buy the best as it is more of a waste of money than usual to buy poor seed. Remember the cheapest in price is not always the cheapest in the end.

**Get our quotations on Field Seeds before buying. Prices quoted are for small lots only. Quantity prices are much lower.**

**ALFALFA**—Northern grown. Alfalfa is perhaps the most valuable of all covers for hay, forage and fertilizer. It is a true leguminous plant, and a perennial, staying on the land for many years. It sends down long tap roots into the subsoil, utilizing the plant foods contained therein. It should be planted on rich, thoroughly drained, non-acid soil with a porous sub-soil. If the soil is acid it should be treated with Ground Lime Rock.



Medium Red or June Clover.

Sow in Northern States in June to August; in Southern States in February or September, 20 to 30 lbs. per acre, broadcast; 15 to 20 lbs. per acre if drilled. Price per lb., 40c, postpaid.

**GENUINE GRIMM ALFALFA**—This famous alfalfa is noted for its extreme hardiness. It successfully stands extreme cold and excessive heat. It has a branching root system with small tap root and produces an abundant crop of forage. Price per lb., 50c, postpaid.

**MEDIUM RED or JUNE CLOVER**—By far the most important of all clovers for practical purposes. It lives two years and grows about two feet high; very valuable for plowing under to enrich the soil, adding humus and nitrogen. We handle only one grade—the best—as it is folly to buy anything else. Sow in spring or fall, 8 to 12 lbs. per acre if used without other grasses. Price per lb., 60c, postpaid.



Kaffir Corn.

**MAMMOTH or LARGE RED CLOVER**—Mammoth Clover is quite distinct from Medium, growing to nearly twice the size, is coarser and a little later. It can be grown successfully on poorer soil than Medium Clover. It is used extensively for building up worn-out land. Sow about 8 to 12 lbs. per acre, when sown alone. **Price per lb., 60c, postpaid.**

**ALSIKE CLOVER**—A perennial and the most hardy of all clovers. It prefers damp, loamy soil. It is extremely leafy, making hay of a fine texture. Does not readily winter kill, and is valuable to sow with other clovers and grasses as it increases the yield of hay. Is the best clover for moist soil. Sow either in spring or fall, about 6 lbs. per acre when sown alone. **Price per lb., 55c, postpaid.**

**WHITE BLOSSOM SWEET CLOVER**—Valuable for pasture, hay and soil improvement. Grows better than most plants in heavy clay soil and many other places where ordinary grasses do not do well. Stands drouth well. **Price per lb., 40c, postpaid.**

**TIMOTHY**—The most important of all the grasses for hay, and is adapted to a wider range of conditions than any other variety of grass. It is the hardiest of all grasses and excels in feeding value. Sow early in the spring or fall, 10 to 12 lbs. per acre if sown alone, less if mixed with other grasses. **Price per lb., 25c, postpaid.**

**SUDAN GRASS**—A tall annual grass reaching a height of 7 to 9 feet when planted in rows and cultivated, and 4 to 5 feet when sown broadcast. The hay is greatly relished by all stock and has exceptionally high feeding value. Is adapted to most all soils. **Price per lb., 30c, postpaid.**

**MILLET**—Usually grows from  $2\frac{1}{2}$  to 4 feet high and makes excellent hay. For hay sow broadcast 25 to 30 lbs. per acre, May 1st to August 1st. Does well on dry and light soils. **Price per lb., 20c, postpaid.**



Field Peas.

**BARLEY, BEARDLESS**—Barley succeeds best on lighter land than adapted to wheat, but soil should be rich. Should be cut before fully ripe unless intended for seed. Sow about 125 lbs. per acre. **Price per lb., 20c, postpaid.**

**BARLEY, SIX ROW**—**Price per lb., 20c, postpaid.**

**SOWING RAPE, DWARF ESSEX**—An annual resembling the Rutabaga in leaf and stalk. It is valuable for green feeding purposes, for a cover crop and is an excellent pasture for hogs and sheep. Thrives best in cool weather. Sow in June or July with a turnip drill in rows  $2\frac{1}{2}$  feet apart at the rate of  $2\frac{1}{2}$  lbs. per acre. **Price per lb., 25c, postpaid.**

**SAND VETCH**—Also called Winter Vetch. A hardy forage plant that succeeds well on soil so poor as to not produce clover. Valuable as a soil renewer on account of its nitrogen gathering properties. Sow 30 to 60 lbs. per acre. **Price per lb., 40c, postpaid.**

**SOY BEANS**—Grow wherever corn will mature. Is adapted to lighter soil and will resist frost better than corn. Drill about same time, and cultivate as you would corn. **Price, per lb., 25c, postpaid.**

**COW PEAS**—Valuable to renovate and enrich the soil. Used also for forage. Rich in nitrogen and when plowed under, leaves the soil in splendid condition. Sow June 1st to July 1st, 60 lbs. per acre when drilled, 100 to 120 lbs. per acre broadcast. **Price, per lb., 25c, postpaid.**

**FIELD PEAS**—One of the best hay and soiling crops that can be grown. Frequently sown with oats. When sown alone about 150 lbs. per acre; with oats, about 75 lbs. and 65 lbs. oats. **Price, per lb., 15c, postpaid.**

**RED COB ENSILAGE CORN**—A large tall growing variety. Very popular for ensilage. Write for prices.

**LEAMING ENSILAGE CORN**—Possesses an abundance of foliage, with broad fine quality leaves and heavy stalks. Unsurpassed for ensilage purposes. Write for prices.

**FIELD CORN**—Write for quotations.

**BUCKWHEAT**—Write for our quotations on Seed Buckwheat.

## Plants

We are sales agents for the Grand Rapids Growers' Association, and in season have a full line of plants. These are grown under glass in a flat box 14 x 20 inches.

Get your plants from headquarters.

	PRICES	Per Box	Crated for Ship-ment
<b>Tomato Plants.</b> About 150 plants to a box.....	\$0.75	\$0.85	
<b>Cabbage Plants.</b> About 150 plants to a box.....	.75	.85	
<b>Pepper Plants.</b> About 100 plants to a box.....	1.00	1.10	
<b>Egg Plant Plants.</b> About 100 plants to a box.....	1.00	1.10	
<b>Cauliflower Plants.</b> About 100 plants to a box.....	1.00	1.10	
<b>Celery Plants.</b> About 100-125 plants to a box.....	1.00	1.10	
<b>Aster Plants.</b> About 100 plants to a box.....	1.00	1.10	
<b>Salvia Plants.</b> About 100 plants to a box.....	1.25	1.35	
<b>Pansy Plants.</b> About 50-60 plants to a box.....	1.25	1.35	
<b>Bellis Perennis (Hardy Daisy).</b> About 100 plants to a box.....	1.25	1.35	
<b>Sweet Potato Plants.</b> About 200 plants to a basket.....	1.00	1.10	
<b>Potted Geraniums.</b> Price per dozen.....	1.25	1.35	

Unless otherwise instructed we ship plants by freight at buyer's risk. We simply get a receipt in good order from transportation company, when our responsibility ceases.



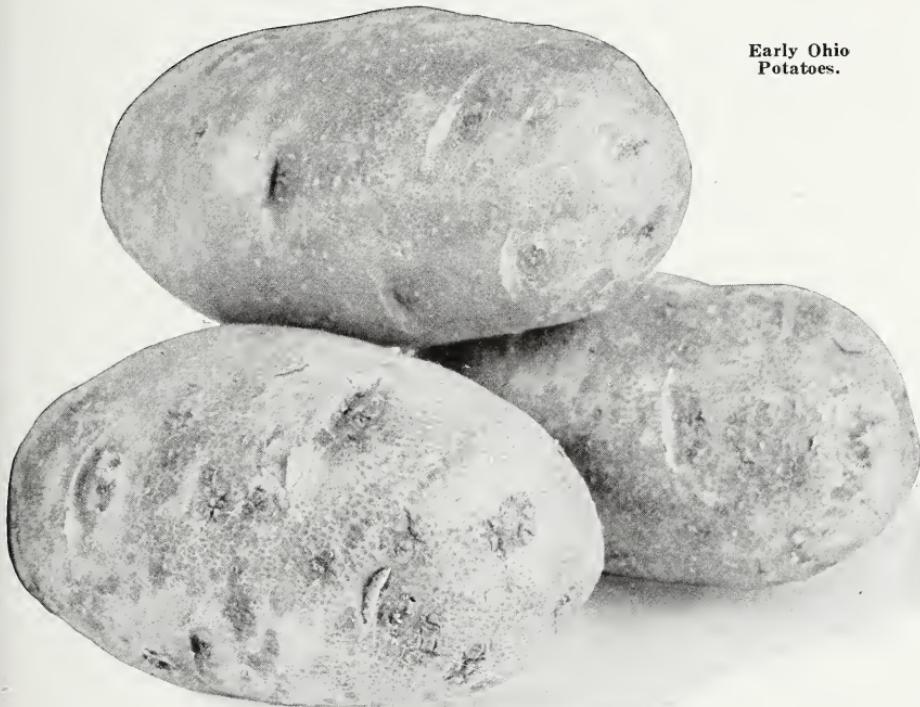
Pepper Plant.



Cabbage Plant.



Egg Plant.



Early Ohio  
Potatoes.

## Seed Potatoes

We are heavy handlers of Potatoes and having our own warehouses throughout Northern Michigan are particularly well equipped for handling Seed Potatoes. Have handled Seed Potatoes for many years and can usually supply standard varieties that will please you and get results.

We ship as soon as weather permits.

Barrel contains 165 pounds.

Bushel contains 60 pounds.

Prices are f. o. b. Grand Rapids and subject to market changes.

### EARLY ROSE

This is the well known long red potato. It is a thrifty grower, medium early and a good cropper. Prices—Barrel, \$5.00; bushel, \$2.00; 3 lbs., by mail, postpaid, 50 cents.

### EARLY OHIO

Extra early, pink to red, grows round to oblong; one of the best for early garden or market. Prices—Barrel, \$5.50; bushel, \$2.25; 3 lbs., by mail, postpaid, 60 cents.

### EARLY MANISTEE

Medium early, round, red; heavy yielder; one of the best of the Rose type. Prices—Barrel, \$5.00; bushel, \$2.00; 3 lbs. by mail, postpaid, 50 cents.

### BLISS TRIUMPHS

Very early, quick grower, round, red; fine for early market. Prices—Barrel, \$6.00; bushel, \$2.50; 3 lbs. by mail, postpaid, 60 cents.

### POTENTATE

Early, round, white, smooth, good yielder. Similar to Irish Cobbler. Prices—Barrel, \$5.00; bushel, \$2.00; 3 lbs. by mail, postpaid, 50 cents.

### IRISH COBBLER

Earliest round white, fine quality, perhaps the best known early white potato. Prices—Barrel, \$5.00; bushel, \$2.00; 3 lbs. by mail, postpaid, 50 cents.

### PETOSKEY

Late round white, netted skin, big yielder. Prices—Barrel, \$4.00; bushel, \$1.50; 3 lbs. by mail, postpaid, 50 cents.

### RURAL NEW YORKER

Late, round white; well known. Prices—Barrel, \$4.00; Bushel, \$1.50; 3 lbs. by mail, postpaid, 50 cents.



Petoskey Potato.

# Bigger Crops and Better Farming

## The Question of Fertilizer

Better farming and larger crops has become the chief topic with the better class of farmers and the question of fertilizer should have serious consideration by every farmer.

It must be conceded that every pound of milk, butter, live stock, grain or vegetables that are sold from the farm removes just that much plant food from the soil.

The question to be solved is the replacing of this plant food. Of course, the use of stable manure, rotation of crops, turning under clover, etc., solve this to a certain extent and are to be recommended first of all. However, in practically every case this is insufficient, and unless some commercial fertilizer is used, the final result is a run-down farm.

The three elements of plant food that are lacking are Nitrogen, Phosphoric Acid and Potash, and it is undoubtedly true that the soil fertility can be maintained and increased by the addition of these elements in the proper proportions. This is easily demonstrated by the case of vegetable growing under glass. We grow four crops yearly on the same soil and do not change the soil. Simply put back in the way of fertilizer what the crops take out.

We are not going to give you any specific advice in this booklet as to what kind or analysis of fertilizer is best for your particular needs. Our advice in regard to this is to consult the nearest government agricultural agent or to experiment yourself with small quantities until you know what is best for your particular crops and land. Then buy good fertilizer, not cheap fertilizer.

As to home mixing versus ready mixed, it is a matter for each grower to decide for himself. The jobbers of raw material strongly advocate home mixing, while the fertilizer manufacturers just as strongly condemn it. We are neutral.

We handle Darling's Complete Animal Matter Fertilizer—conceded the best—Wizard Brand Sheep and Cattle Manure, undoubtedly the best and most popular, and the best raw material that money will buy.

The best recommend we can give these goods is that we use them ourselves.

### General Directions for Using Fertilizer

Never mix the fertilizer with the seed.

The best way to apply fertilizer to field crops is to use a fertilizer drill, otherwise sow broadcast after plowing or spading, then thoroughly harrow or rake into the soil before planting or sowing.

Be sure to work the fertilizer into the soil as thoroughly as possible.

Wheat, oats, rye, barley, potatoes, use not less than two hundred to four hundred pounds per acre if drilled in. If used broadcast, use one-fourth more to obtain the same results.

**Corn:** If a fertilizer drill is used, run through all holes and deeper than if you were sowing wheat. If not drilled, sow broadcast, using from two hundred to four hundred pounds per acre.

A quick, early start can be gained by using a handful to two or three hills, mixing well with the soil, so that it does not come in direct contact with the seed.

**Beans:** Drill in with a fertilizer drill, letting all holes run fertilizer, using two hundred pounds per acre, or it can be applied broadcast and harrowed in. Some apply by drilling in the full amount with the seed; that is, letting all the fertilizer run through the same hole as the seed. This is not as good a way if the field is to be sown to wheat, oats or barley. On corn and beans many farmers are applying the fertilizer about ten days before planting the crop, claiming better results, as the fertilizer is partially dissolved at the time of planting.

**Grass and Meadows:** Use early in the spring, sowing broadcast two hundred to four hundred pounds per acre.

**Potatoes and Vegetables:** Sow broadcast at the rate of five hundred to fifteen hundred pounds to the acre. If used in hill, or trench, mix well with the soil and do not let seed come in contact with the fertilizer.

For potatoes, when using large quantities of fertilizer, the best way is to use part broadcast and the balance in the hill with drill.

Tomatoes or anything that is transplanted, use from a teaspoonful to a small handful to the plant at transplanting time, according to the size of the plant, mixing well with soil, and for big results, apply a small handful to each plant after same is well started, and cultivate in thoroughly.

**Tobacco:** Drill or put in the hill or apply broadcast as you prefer, using four to six hundred pounds per acre.

**Melons, Squash, Etc.** Use eight hundred to one thousand pounds per acre broadcast, or if you put in a hill apply one pint to each plant, mixing thoroughly with the soil.

**Strawberries:** For new beds, apply broadcast where rows are to be and mix thoroughly with the soil. If old beds, apply between the rows and work into soil thoroughly, being careful not to let any of the fertilizer come in contact with the vine.

**Orchards and Fruit Trees:** For trees in bearing, apply broadcast, beginning one-third of the way from the trunk to the outer reach of the branches. Plow in with gang plow or cultivate in thoroughly, using from five hundred to two thousand pounds per acre.

For trees at time of setting out, apply one to five pounds per tree in hole after covering roots with two inches of soil. Quantity to be used according to the size of the tree.

**Grapes or Small Fruits:** Apply one to three pounds per plant at time of setting. First, partially cover the roots. After same has reached bearing stage, sow broadcast and harrow in.

Remember, that in all cases thorough cultivation will enable the fertilizer to give the best results.

Also, that it is the roots of the plant that take up the plant food, and that fertilizer should be applied in such a manner that the roots can best take it up.

## Wizard Brand Pulverized Sheep Manure

This is unusual quality pure animal manure reduced to commercial form by a careful process of separation and grinding and evaporation of moisture under high temperature which destroys the weed seeds.

Humus is one of the most important and valuable elements in the soil, and the fact that this product supplies humus, recommends it to the thoughtful consumer.

Especially recommended for greenhouse use, lawns, gardens, etc., although equally good for general farm purposes.

### PRICES

5 lbs. in paper carton .....	\$0.30
10 lbs. in paper carton .....	.55
25 lbs. in 25 lb. bag .....	.65
50 lbs. in 50 lb. bag .....	1.15
100 lbs. in 100 lb. bag .....	2.00
500 lbs. in 100 lb. bags .....	9.00
1000 lbs. in 100 lb. bags .....	17.50
2000 lbs. in 100 lb. bags .....	34.00

Special prices on carloads or when loaded in mixed cars with other fertilizer.

## Wizard Brand Pulverized Cattle Manure

Only the best quality fresh manure gathered from brick paved Stockyard cattle pens, is used in preparing Wizard Brand Cattle Manure. They are entirely free from mixture of other kinds and can be relied upon for safe, uniform and satisfactory results.

This is especially recommended for the Florist, Greenhouse Vegetable Grower, and for gardens, both vegetable and flower.

Also particularly good for new seeding, clover, alfalfa, etc. Either worked into seed bed or used as a top dressing.

Try it on your garden.

### PRICES

100 lbs. in 100 lb. bag .....	\$ 1.80
500 lbs. in 100 lb. bags .....	8.50
1000 lbs. in 100 lb. bags .....	16.00
2000 lbs. in 100 lb. bags .....	31.00

Special prices on carloads or when loaded in mixed cars with other fertilizer.

## Darling's Farmers' Favorite

### Guaranteed Analysis

	Per cent
Ammonia (Animal Tankage) .....	3
Nitrogen (Animal Tankage) .....	2.47
Available Phosphoric Acid .....	8
Insoluble Phosphoric Acid (Animal) .....	2
Potash (K <sub>2</sub> O) .....	1

This is a high-grade all-round fertilizer, especially adapted to all field crops, and is better for market gardeners' use than nine-tenths of the "Onion Growers," "Potato Growers," etc., on the market.

When making field tests with this brand to compare with cheap goods, use a less quantity of it against a larger quantity of the cheap goods in accordance with the price.

### PRICES

1 sack, 125 lbs. ....	\$ 3.75
8 sacks, 1000 lbs. ....	28.00
16 sacks, 2000 lbs. ....	55.00

## Darling's Big Harvest

### Guaranteed Analysis

	Per cent
Ammonia (Animal Tankage) .....	2
Nitrogen (Animal Tankage) .....	1.65
Available Phosphoric Acid .....	12
Insoluble Phosphoric Acid (Animal) .....	2
Potash (K <sub>2</sub> O) .....	1

We consider this one of our best brands, and it is satisfying an increasingly large number of customers who demand a high grade fertilizer, containing a large per cent of Available Phosphoric Acid. Crops which are grown with this fertilizer usually mature from one to three weeks earlier than crops on which no fertilizer is used.

### PRICES

1 sack, 125 lbs. ....	\$ 3.50
8 sacks, 1000 lbs. ....	26.50
16 sacks, 2000 lbs. ....	52.00

## Darling's Grain Grower

### Guaranteed Analysis

	Per cent
Ammonia (Animal Tankage) .....	1
Nitrogen (Animal Tankage) .....	.82
Available Phosphoric Acid .....	9
Insoluble Phosphoric Acid (Animal) .....	2
Potash (K <sub>2</sub> O) .....	1

For most soils, this brand contains enough ammonia (all derived from high grade Animal Tankage) to give the young plant a good start, a sufficient amount of Phosphoric Acid to raise a bumper crop, and enough Potash to help stiffen the stalk and put weight in the grain.

### PRICES

1 sack, 125 lbs. .....	\$ 2.90
8 sacks, 1000 lbs. .....	21.00
16 sacks, 2000 lbs. .....	40.00

Special prices when loaded in mixed cars with other fertilizer.

## Darling's Sure Winner

### Guaranteed Analysis

	Per cent
Ammonia (Animal Tankage) .....	1.
Nitrogen (Animal Tankage) .....	.82
Available Phosphoric Acid .....	10.
Insoluble Phosphoric Acid (Animal) .....	2.
Potash (K <sub>2</sub> O) .....	.5

This brand is especially adapted to land containing a good supply of ammonia. For instance, where land has been heavily manured, or clover has been turned under, this brand can be used with excellent results, as clover robs the soil of phosphoric acid and potash and practically returns nothing but ammonia or nitrogen. This brand contains enough nitrogen to give the plant an early start and maintain the growth until it gets sufficient root to take up the nitrogen in the soil.

### PRICES

1 sack, 125 lbs. .....	\$ 2.70
8 sacks, 1000 lbs. .....	19.50
16 sacks, 2000 lbs. .....	38.00

## Steamed Ground Bone

### Guaranteed Analysis

	Per cent
Ammonia (Bone) .....	2.25
Nitrogen (Bone) .....	1.85
Total Phosphoric Acid .....	28.

This is a soft steamed bone and the staple article for fall seeding. It is wholly animal matter. It is especially adapted for use on grain, alfalfa, meadows, and for greenhouse purposes.

### PRICES

1 sack, 125 lbs. ....	\$ 3.25
8 sacks, 1000 lbs. ....	24.00
16 sacks, 2000 lbs. ....	47.00

We are in position to furnish bone in carloads or loaded in mixed cars with other fertilizer at prices that will interest you.

## Acid Phosphate

### Guaranteed Analysis

Available Phosphoric Acid .....	16 per cent
---------------------------------	-------------

This is an exceptionally good grade of Acid Phosphate and often exceeds the guaranteed analysis.

If you want Acid Phosphate for home mixing or for use by itself, we are sure these goods will please you.

Are in position to name the very best prices consistent with quality goods on carloads or in mixed cars with other fertilizer.

Let us quote you.

### PRICES

1 sack, 125 lbs. ....	\$ 2.25
8 sacks, 1000 lbs. ....	16.00
16 sacks, 2000 lbs. ....	30.00

Acid Phosphate will increase the yield of wheat. Try it. It will pay you, and the whole world needs wheat.

## Nitrate of Soda

Nitrate of Soda in its commercial form is 95 per cent pure and contains about 15½ per cent of Nitrogen, equal to about 19½ per cent of Ammonia.

As the source of Nitrogen or Ammonia in home mixed fertilizers Nitrate of Soda is the most desirable, particularly for all quick growing crops and when early maturity is desired.

We handle Nitrate of Soda in car lots and are headquarters for this article in North and Western Michigan.

Can make special prices when loaded in mixed carloads with other fertilizer.

### PRICES

Less than 100 lbs., 8c per pound.

1 sack, 100 lbs. ....	\$ 6.50
1 sack, 200 lbs. ....	12.00
5 sacks, 1000 lbs. ....	57.00
10 sacks, 2000 lbs. ....	110.00

## Tennessee Ground Rock Phosphate

### Guaranteed Analysis

29 1/4 per cent Phosphoric Acid (13 per cent Phosphorus).

Ground 95 per cent through 100 Mesh Screen.

This is strongly recommended by many as the cheapest method of obtaining Phosphoric Acid. Usual method is to run it through the stable and out with the manure during the winter. Many also advocate its use direct on the land.

This is the best grade of these goods we can obtain.

### PRICES

1 sack, 80 lbs. ....	\$0.70
12 sacks, 960 lbs. ....	6.50
25 sack's, 2000 lbs. ....	12.00

Get our prices on Phosphate in carloads, bulk and in 80 lb. paper sacks. Also special prices, when loaded in mixed cars with other fertilizers.

## Ground Lime Rock

Practically all the land in Michigan needs Ground Lime Rock to neutralize the acid in the soil. In other words to sweeten the soil.

It is practically indispensable for alfalfa and similar crops. In fact, should be used freely on most land for any crop.

Most lawns would be benefited by application of Ground Lime Rock.

### PRICES

1 sack, 100 lbs. ....	\$0.75
1 sack, 200 lbs. ....	1.25
5 sacks, 1,000 lbs. ....	4.00
10 sacks, 2,000 lbs. ....	7.00
In bulk, 2,000 lbs. ....	5.00

Special carload prices on application.

Special price when loaded in mixed carloads with other fertilizer.

We strongly recommend the liberal use of Ground Lime Rock.

## Insecticides

**“Nico Fume” Liquid** (Nicotine Solution) for Fumigating or Spraying.  
A highly refined solution of “**free**” Nicotine, containing 40 per cent of Nicotine.

### PRICES

8 lb. tins .....	per tin	\$10.50
4 lb. tins .....	per tin	5.50
1 lb. tins .....	per tin	1.50
$\frac{1}{4}$ lb. tins .....	per tin	.50

## “Black Leaf 40”

(Sulphate of Nicotine)

A concentrated solution of Nicotine Sulphate containing 40 per cent of Nicotine.

For sheep and cattle dipping and spraying for Pear Thrips, Green Aphis, Pear Psylla, Hop Louse, Black Aphis, Wooly Aphis, etc.

10 lb. tins .....	per tin	\$10.75
2 lb. tins .....	per tin	2.50
$\frac{1}{2}$ lb. tins .....	per tin	.75
1 oz. bottle .....	per bottle	.25

## Pure Paris Green

This is strictly pure Paris Green of the very best quality and will give satisfaction.

### PRICES

$\frac{1}{4}$ lb. boxes .....	\$	.20
$\frac{1}{2}$ lb. boxes .....		.35
1 lb. boxes .....		.60
2 lb. boxes .....		1.15
5 lb. boxes .....		2.80
14 lb. kits .....		7.30
28 lb. kits .....		14.30
56 lb. kits .....		28.60
100 lb. kegs .....		50.00

We also wholesale Paris Green and give special prices to dealers. It will pay dealers to get our prices before buying. We can save you money.

Remember, that we are large handlers of Paris Green and usually have stock for immediate shipment when others are out.

## Glidden Arsenate of Lead

**Paste**—An arsenical poison to destroy leaf-eating insects, such as Codling Moth, Potato Bug, Curculio, etc.

### PRICES

1 lb. cans .....	\$ 0.30
5 lb. steel kegs .....	1.25
10 lb. steel kegs .....	2.40
20 lb. steel kegs .....	4.50
50 lb. steel kegs .....	10.50
100 lb. steel kegs .....	20.00

**Powder**—May be mixed with water and applied as a liquid spray, or may be used as a dust spray.

### PRICES

½ lb. package .....	\$ 0.30
1 lb. package .....	.55
5 lb. package .....	2.40
10 lb. package .....	4.20
20 lb. package .....	8.00
50 lb. package .....	19.50
100 lb. package .....	38.00
200 lb. package .....	75.00

Lowest jobbing prices to dealers.

## Glidden Arsenate of Calcium

Similar in many respects to Arsenate of Lead and for many purposes Arsenate of Calcium is virtually as effective as Arsenate of Lead, and very splendid results have been secured with it.

It is especially recommended for use on seed fruits, such as Apples, Pears and Quinces, but on tender foliage such as that of the Peach and Japanese Plum, it is apt to cause burning, and we do not recommend Arsenate of Calcium for this purpose.

It is a splendid substitute for Paris Green for spraying potatoes, and will be found equally satisfactory and more economical.

**Directions for Use**—When used with Bordeaux Mixture or Lime-Sulphur, use three-fourths to one pound to fifty gallons of solution. When used alone, use three-fourths to one pound to fifty gallons of water, adding two or three pounds of good stone lime. For dusting, mix with eight or ten parts of gypsum or lime.

### PRICES

1 lb. package .....	\$ 0.50
5 lb. package .....	2.25
10 lb. package .....	3.80
25 lb. drum .....	9.00
50 lb. drum .....	17.50
100 lb. drum .....	33.00
200 lb. drum .....	65.00

## Copper Sulphate or Blue Vitrol

We are headquarters for Copper Sulphate, buy in carlots and are in position to supply it either wholesale or retail.

If you use Copper Sulphate let us hear from you.

Guaranteed 99 per cent pure. Large blue crystals.

### PRICES

Barrel lots, about 400 lbs.	13c per lb.
Less than barrel lots	15c per lb.

## Dry Lime Sulphur

Dry Lime Sulphur can be used for any purpose for which the Liquid Lime Sulphur Solution has been used in the past.

To prepare it for the spray it is only necessary to add water. This mixing can be done right in the tank in any kind of weather, thus insuring a great saving in time and material for the consumer, both large and small.

### PRICES

5 fb. drums	\$1.00
10 fb. drums	1.75
25 fb. drums	4.00
50 fb. drums	7.00

## Bordeaux Mixture Paste

Bordeaux Mixture is a fungicide compound of ingredients which prevent the spread of fungous diseases.

Bordeaux Mixture is prepared in a smooth paste. One pound is mixed first with a small amount of water to make a thin paste, then add sufficient water to make five gallons. **Dilution: One pound to five gallons of water.**

### PRICES

1 fb. package	\$0.30
5 fb. package	1.25
10 fb. package	2.20
20 fb. package	4.00

## Glidden Dry Bordeaux Mixture

Glidden Dry Powdered Bordeaux Mixture can be used wherever paste Bordeaux Mixture has been used heretofore. It is splendidly adapted for both fruit tree and truck crop work, and can be used in combination with any of **Glidden's** insecticides, either as a dry or as a liquid spray.

### PRICES

1 lb. package	\$ 0.30
5 lb. package	1.30
10 lb. package	2.30
25 lb. drum	5.50
50 lb. drum	10.50
100 lb. drum	20.00

## Mastica Liquid Glazing Putty

"Best for Glazing."

For glazing greenhouses, hot beds, sash, etc. Better than putty. Does not crack. Always remains soft.

Price ..... per gallon, \$1.65

## Ajax Asbestos Black Glazing Cement

This product is a cement-like composition that is made to be applied with an ordinary putty bulb. Its exceptionally long life is largely due to the fact that it never thoroughly hardens. Only the outside which is exposed to the oxygen of the air, forms an elastic, tough skin, below which the material remains soft and plastic. Because of this, extremes of temperature do not cause it to crack or otherwise deteriorate.

Also, due to the fact that it does not thoroughly harden, glass cemented with it can be shifted when necessary without the loss of breakage that so often results when hard drying putties are used.

### PRICES

In 5 gallon kits .....	\$1.20 per gallon
In 10 gallon kits .....	1.15 per gallon
In half-barrels (about 30 gallons).....	1.05 per gallon
In barrels (about 55 gallons).....	1.00 per gallon

## Scollay's Putty Bulb

A useful tool for applying liquid putty in glazing greenhouses, etc.

Price, each ..... \$1.25

## Scollay's Angle Neck Sprinkler

For sprinkling plants, flowers, clothes, etc.

Price, each ..... \$1.25

## Twine

We carry 2 and 3 ply Jute for tying up tomatoes, and also best sewing twine for potato bags. Prices on application.

## Brimstone

Rolled Brimstone, per cwt. ..... \$5.00

Sold only in barrel lots. Used for all bleaching purposes.

## Whale Oil Soap

A wash for foliage and trunks of plants and trees. Kills insects and eggs.  
1 pound ..... \$0.25

## Cut Worm Killer

1 pound ..... \$0.30  
5 pounds ..... 1.25

## Red Snapper Plant Food and Soap

A rich and nutritious fertilizer for House Plants and Flower Gardens. Made from thoroughly sterilized, completely aerated, steam dried fish bones and nitrogenous cartilage, together with pulverized tobacco stems. Is clean and sanitary.

Food—small package .....	25 cents
Food—large package .....	50 cents
Soap .....	25 cents

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## Felix Girard Rat and Mouse Embalmer

This preparation has peculiar properties attractive to rats and mice. When used according to directions, it will thoroughly rid the worst infested premises in **one night without after odors**. It contains no phosphorus, which is condemned by Government Experts on account of fire danger.

### PRICES

Small package .....	\$1.00
1 lb. package .....	3.00

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## Tree Tanglefoot

Tree Tanglefoot is a sticky compound similar to that used in making Tanglefoot Fly Paper, and is especially adapted for protecting trees from the attack of climbing and creeping insects, particularly gypsy, brown-tail and tussock caterpillars, canker worms, climbing cut worms and ants. On matured fruit trees and all shade trees it is applied directly to trunks, but on young trees we recommend application over strips of manila paper.

Will not injure trees.

### PRICES

1 lb. package .....	\$ 0.50
3 lb. package .....	1.45
10 lb. package .....	4.50
20 lb. package .....	8.75
25 lb. package .....	10.50

## Get More Eggs



Get them all the time—in winter as well as in summer. More eggs mean more profits. Get the most out of your hens by giving them

### Conkey's Poultry Tonic

It will insure the maximum egg production. Guaranteed to please you or money back.

## Conkey's Poultry Remedies

In order to raise poultry successfully you must be in position to combat disease as soon as it appears in the flock. Conkey's Remedies are standard and cannot be excelled.

### PRICES

Roup Remedy .....	.30c per package
Roup Remedy .....	.60c per package
Roup Pills .....	.30c per package
Cholera Remedy .....	.30c per package
Gape Remedy .....	.30c per package
White Diarrhea Remedy .....	.30c per package
White Diarrhea Remedy .....	.60c per package
Lice Powder .....	.30c per package
Lice Powder .....	.60c per package
Lice Liquid .....	.50c per package
Head Lice Ointment .....	.15c per package
Lice Fix .....	.30c per package
Poultry Tonic .....	.30c per package
Poultry Tonic .....	.60c per package
Noxicide Dip and Disinfectant .....	.40c per package



## Norcross Cultivator Hoes

Norcross Cultivator Hoes and Weeders comprise the most modern type of cultivating implements ever invented for the garden and flowers.

### PRICES

5-prong, 4-ft. handle .....	\$1.00
3-prong, 4-ft. handle .....	.75
"Midget" 9-inch handle .....	.40

(Midget by parcel post, prepaid, for 50 cents).

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## Lowell Sprayers

**Lowell Continuous**—A hand spray that gives a continuous spray.

Brass, each .....	\$1.25
Galvanized, each .....	1.00

**Lowell Special**—A special type metal hand sprayer designed especially for use in gardens, houses and stables.

Galvanized, each .....	\$0.60
Tin, each .....	.50

**Baby Midget**—A small size single tube tin sprayer for domestic purposes.

Tin, each .....	\$0.30
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## Skinner System Supplies

### Skinner System Nozzles

**Silver Stream Outdoor Nozzles**—Suitable for all outdoor irrigation; will throw from 25 to 30 feet at 30 pounds pressure. **Price, 6c each.**

**Greenhouse Nozzles**—Suitable for distribution of fine mist at short range. Made in two sizes to throw 10 and 12½ feet, covering 20 to 25 feet. Distance of throw based upon full 30 pounds pressure.

No.	Feet throw	Price
ST50	10	\$0.08½
ST70	12½	\$0.08½

**Silver Stream Inlet Type**—Has same type of inlet as Silver Stream Outdoor Nozzle. Where water carries slime, jelly-like matter or similar sediment, this nozzle should be used.

No.	Feet throw	Price
SS50	10	\$0.08½
SS70	12½	.08½
SS80	16	.08½

**Note**—No. SS80 is used principally in outdoor watering, suitable for greenhouse only when a far throw with a heavy spray is desired. Used outside to water seed beds, flower beds, shrubbery borders, etc.

### Skinner System Unions

No. E. Inlet 1 in., outlet $\frac{3}{4}$ to 1 inch.....	\$2.10
No. N. Inlet $1\frac{1}{4}$ in., outlet $1\frac{1}{4}$ inch .....	2.80
No. R. Inlet $1\frac{1}{2}$ in., outlet $1\frac{1}{2}$ to 2 inches.....	2.90

### Skinner System Drilling Machine

This machine is absolutely necessary to install the Skinner System of Irrigation. With it are shipped without charge, 4 large tap drills suitable for Silver Stream outdoor and greenhouse nozzles. The drilling machine is furnished in two models.

Model A, suitable for installation of moderate size. Price each.....	\$ 9.70
Model B, a heavier, stronger machine, suitable for larger installations, Price each .....	12.70

### Extra Tap Drills

Large, No. $\frac{5}{16}$ -24. each .....	\$0.35
Small, No. 12-24, each.....	.25

## Wells Higman Co. Baskets

Our baskets are best quality and we try to carry a complete line. Prices are right, considering quality of package.

### PRICES

	Per doz.
Bushels .....	\$2.00
Half Bushels—side handles .....	1.60
Half Bushels—bale handles .....	1.70
Bushel Covers .....	.70
Half Bushel Covers .....	.50

### Per M.

7 lb. complete, Raised Slat Covers.....	\$50.00
7 lb. without Covers .....	35.00
7 lb. Raised Slat Covers .....	15.00
7 lb. complete Flat Grape Covers .....	39.00
7 lb. Flat Grape Covers .....	4.00
4 lb. Without Covers .....	28.00
Quart Boxes .....	10.00
16 Quart Crates, filled, each .....	.25

Special prices in large quantities.

## Pop Corn

Globe Brand Shelled Rice Pop Corn. Sure to pop. Price, 20 cents per pound, postpaid.

## Home Mixing of Fertilizer

The purchase of straight fertilizer materials for Home Mixing is not a new proposition, but it is only within the last few years that the practice has become general.

**Nitrate of Soda** is the most available source of nitrogen or ammonia. The ammonia or nitrogen in Nitrate of Soda is in nitrate form and is immediately and all available.

**Acid Phosphate** is the most common source of Phosphoric Acid for Home Mixing. Our Acid Phosphate is of the highest degree of availability and in excellent mechanical condition.

**Muriate of Potash** is the main source of supply for potash for all commercial fertilizers on the market and contains 48 to 50 per cent of actual potash. It is the one grade of potash in general use.

**Kainit** (12 per cent actual Potash) is also used for home mixing. On light soils its effects are beneficial.

Below is a Home Mixing Table from which any desired analysis can be obtained.

### Home Mixers Fertilizer Table

Any Formula at a Glance.

Exact number of pounds of each material required for the equivalent of 2,000 lbs. of Ready Mixed Fertilizer of analysis desired.

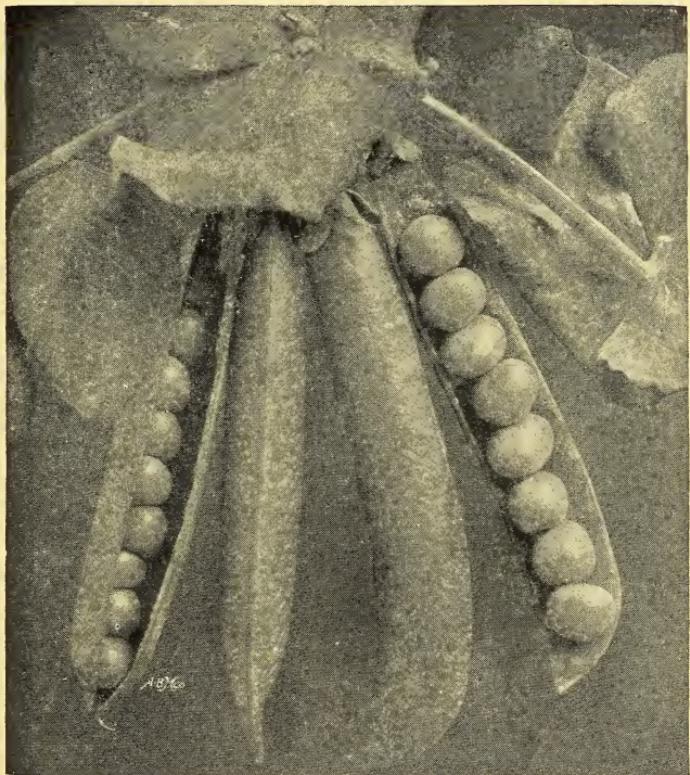
Percent- ages or Units Desired	Ammonia from Nitrate of Soda	Available Phosphoric Acid		Actual Potash from Muriate of Potash	Potash from Kainit 12%
		From 14% Acid Phos- phate	From 16% Acid Phos- phate		
1	110	143	125	40	166
2	220	286	250	80	333
3	330	429	375	120	500
4	*440	571	500	160	667
5	550	714	625	200	833
6	660	*857	750	240	1000
7	770	1000	875	280	1167
8	880	1143	1000	320	1333
9	990	1286	1125	360	1500
10	1100	1429	1250	*400	1667
11	1210	1571	1375	440	1833
12	1320	1714	1500	480	2000

Example: To make a fertilizer containing 4 per cent Ammonia, 6 per cent available Phosphoric Acid, 10 per cent Potash. By looking in the per centage column for 4 per cent and in the Nitrate column we find 440 lbs., in the 16 per cent Acid Phosphate column opposite 6 per cent we find 750 lbs., and in the Muriate of Potash column opposite 10 per cent we find 420 lbs.; the sum of the 440 lbs., 750 lbs. and 420 lbs. is 1610 lbs., which is equivalent to and contains the same amount of Plant Food as 2,000 lbs. of the 4-6-10 manufactured fertilizer.

Any combination can be figured in the same way.

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Grand Rapids Forcing Lettuce in Reed & Cheney Company Plant No. 2